

WHAT IS CLAIMED IS:

1. A method for decomposing a perfluorocompound comprising bringing a gas flow containing a perfluorocompound containing only fluorine as a halogen, into contact with a catalyst comprising Ni, W and Al as catalytically active ingredients and comprising a mixed oxide or complex oxide of Ni and Al and a mixed oxide or complex oxide of Ni and W, in the presence of steam or a combination of steam and air at a temperature of 500 to 800°C to convert the fluorine in said perfluorocompound to hydrogen fluoride.
2. A method for decomposing a perfluorocompound according to claim 1, wherein said catalyst comprises Ni and Al in a mole ratio of 5/95 to 40/60 and contains W in a proportion of 0.1 to 10 wt% based on the total weight of said catalyst comprising a mixed oxide or complex oxide of Ni and Al.
3. A catalyst for decomposing a perfluorocompound containing only fluorine as a halogen by reacting it with steam or a combination of steam and oxygen, which comprises Ni, W and Al as catalytically active ingredients and comprises a mixed oxide or complex oxide of Ni and Al and a mixed oxide or complex oxide of Ni and W.
4. A catalyst for decomposing a perfluorocompound according to claim 3, wherein said catalyst comprises Ni and Al in a mole ratio of 5/95 to 40/60 and contains W in a proportion of 0.1 to 10 wt%

based on the total weight of said catalyst comprising a mixed oxide or complex oxide of Ni and Al.

5. A process for preparing a catalyst for decomposing a perfluorocompound which comprises adding an aqueous solution containing a material for nickel oxide to powder of a material for Al_2O_3 , calcining the resulting mixture, adding thereto an aqueous solution containing a material for tungsten, and then calcining the resulting mixture to obtain a catalyst comprising a mixed oxide or complex oxide of Ni and Al and a mixed oxide or complex oxide of Ni and W.

6. An apparatus for treating a perfluorocompound comprising a means for obtaining a gas flow by diluting a perfluorocompound with nitrogen or air; a means for adding steam to said gas flow; a reactor for bringing said gas flow containing the added steam into contact with a catalyst to decompose the perfluorocompound; a heating means for heating said catalyst comprising Ni, Al and W as catalytically active ingredients and comprising a mixed oxide or complex oxide of Ni and Al and a mixed oxide or complex oxide of Ni and W which has been packed in said reactor, to the decomposition temperature of the perfluorocompound; and an exhaust gas washing tank for bringing a gas containing decomposition products produced in said reactor into contact with water or an alkali to remove hydrogen fluoride from the gas.

7. An apparatus for treating an etching gas

wherein an apparatus for treating a perfluorocompound according to claim 6 is set so as to succeed an etching apparatus for a semiconductor or liquid crystal, whereby the etching gas is treated.